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AGRICULTURAL.

Improving the Farm.

Many farmers of late years have given up the notion of improving their farms through the use of money. They have been content with the land as they found it, and have not made the improvements which would have made it more valuable. This is a mistake. The farm is a business, and like any other business, it should be improved. The first step in making the farm better is to improve the stock kept on it. This is the safest step for the farmer whose land is heavily encumbered, for the stock is personal property, and unless the farmer gives a chattel mortgage on that he can hold it or dispose of it even though the farm be sold. But when a farmer begins judiciously to make his farm stock better he can soon begin to make payments on the farm mortgage that will reduce his indebtedness so that they need not worry him. By judicious improvement we mean that which with small outlay will grow most rapidly in value. Poultry and pigs fulfill these conditions provided pure-blooded animals are obtained that will perpetuate the excellencies they possess. A young sow of the Chester White, Berkshire, Poland China or large Yorkshire breed will, if bred to some male of the same breed as herself, bring a greater profit to her owner than the average cow or horse, and will not cost nearly so much to keep. A trio of chickens of some of the best laying breeds costs too much if bought late in the spring. But every farmer, however poor, keeps hens, and by getting two, three or four sets of eggs, all of some good and pure-producing variety and pure bred, the farmer may have by fall enough birds to stock his yard, and he may then kill off all the old fowls and breed only those of pure blood. He will have to cull out those that do not come up to the standard. In order to breed fowls that will sell for pure blood, but all that he does in this way will be more than made good to him by the higher prices he can obtain for those he sells.

In the meantime the cows should be graded up by breeding the very best or those which produce most milk and selling the remainder. Most poor farmers have a number of poor cows which they hold much as did the man who had a wolf by the tail afraid either to hold on or to let him go. Though these cows have for years kept the farmer in debt, their sale without other to replace them might seem to make the farm not stocked so well, and therefore hurt the farmer's credit. But if he can show calves or yearlings with half blood of Holstein, Guernsey or Jersey crosses these will be constantly gaining in value, while it is certain that a cow of no particular value for breeding decreases in value after she is eight years old. All the heifer calves of this cross should be kept long enough to test their capacity for milk and butter production unless they are from the first so marked with a beefy tendency to put on fat as to make it certain that their feed will always go to make meat instead of milk.

We have said nothing so far about increasing soil productivity and fertility, which is really most important of all. Every improvement in stock makes the manure from the barnyard, pigpen and barnyard cost less. It can therefore be used more freely and with greater profit. We assume that all the side crops, like clover, that are used to make land fertile will be sown and grown whenever there is a chance. So far as possible the clover seed should be sown within a year after the land

had some stable manure. If it is sown with a grain crop some mineral fertilizer should be drilled with the seed grain for the benefit both of the grain and of the clover plant that shall grow up under its shade. If timothy seed or other grasses are sown with grain the fertilizer should always be drilled in at the same time. On meadow land that is deficient in potash and phosphate these minerals are as much needed to make a growth of timothy as of wheat or other grains, all of which belong to the family of grasses.

No general system of underdraining should be undertaken by a farmer who is heavily in debt and who wants immediate returns for money expended. But if a stream runs through the farm, short underdrains to lead from low places where water stands to the stream may often be made at a cost so low that the first crop grown will pay for it and give a profit besides. Each year when the stream overflows in spring, it leaves a sediment of the richest soil on its banks where its current is checked, while the soil containing less sediment spreads out farther over the land. This accounts for the many swampy places and shallow ponds that are found near the banks of all streams. These can always be profitably underdrained, and if the drain does not require too large a tile or stone outlet it will often pay quickly enough to enable the poor farmer to undertake it. While a farmer is doing much of this work himself in digging and laying short underdrains, the value of the farm for selling is growing and he is not likely to be the loser. The kind of underdraining that should only be attempted by farmers with plenty of money is that which begins with digging and filling the main ditches, making very large conduits and then digging small underdrains to lead into them. This is only practical where a large area is to be underdrained and where there is a profitable market for all the land can be made to grow. In these large operations the cost of the work can be lessened by ditching machines operated by steam power, but which are much too expensive for small farmers to afford. It is probable that some time the work of underdraining of large districts will be done by contract. This will make it easier for their business and the parties benefited will each pay his proportion of the cost. The man who wants to own a small place can purchase such land with underdrains already laid and doing their work, just as in cities land has sewers and gas pipes put through it even before it is built on. There is a large tract of low land lying near the Kanawha river in northern Illinois and Indiana which has thus been reclaimed by the States which owned it, and has been sold to private parties for more than enough to pay for doing the work, though it was a work involving too great an expense for any individual owner of the adjacent land to undertake.

Farm Hints.

Now that the agricultural societies have elected their officers and decided on their fair programmes for the coming year, they will begin to hold their farmers' institutes and have to decide upon whom they wish to address them and upon what topics they desire to be instructed. Yes, that is the word, for the institutes are held for the instruction of the farmers, and in most cases the speakers are selected because of their capability to instruct upon some particular branch of agriculture. But all that is to be learned there is not from the principal address or essay. It usually calls out from some practical farmers in the audience, who perhaps could not deliver a 15-minute address, some statements of facts from their own experience or observation that may be better adapted to the particular wants of the audience than anything that had been said before. Farmers should try to attend for the purpose both of learning and of telling to others what they know. There are also Daymen's Conventions for those interested in that branch of farming, and meetings of horticultural or pomological societies for the gardeners and orchardists, and associations of other sorts that the farmer and his family should feel interest in to attend. If he cannot do so let him endeavor to obtain the reports of these meetings and read them over, think about them, talk about them at the Grange, or wherever he may meet other farmers who are interested in such topics. He will be the wiser man and the better farmer next year for so doing.

If farmers would select their largest and plumpest grain for seed they could seed much less heavily than they do and grow larger crops as well. This has been many times proven by careful experiment. There is a saving in the amount of seed used and a gain in the amount of crop grown that made a great difference in the cost of growing the crop, in some cases all the difference between a profit and a loss. The same thing is true of garden seeds. One had better pay a dollar a pound for plump, well-developed and well-ripened seeds, than to have inferior seed given to them. Probably seed will average better this year than it has some years, because of the favorable weather for ripening and curing it, but we repeat our advice to the gardener to test his seed by putting some of it between damp cloths to see how much will germinate before sowing. It is provoking to sow a lot of seed with great care and find that but a small part comes up, perhaps just enough to encourage one to care for the crops, instead of digging it up and putting in some other, and not enough to warrant the expectation of more than half a fair crop. Yet almost every gardener has had such an experience.

We hope the good work of raising calves

which was so well begun last spring will be kept up this year. If we can see anything of the signs of the times there is likely to be a good demand for milk cows, and at good prices, if they were well bred, for some years to come. The loss of cows killed by reason of the tuberculous scare, and of those killed because they have failed to show by the Babcock test that they were profitable, has reduced the herds to an amount that may be seriously felt in a year or two longer. To supply their place there should be all the better calves raised whose breeding warrants it. There is also likely to be some demand for steers or working oxen if the scarcity of horses continues, and we shall expect to see many farmers using them within the next five years who have not used them for many years. And if their calves are not needed for oxen they are likely to be needed for beef. Although the consumption of beef lessened some in consequence of the rise in price last fall, and as a result the wholesale prices have slipped back a little, we shall not be surprised to see them advanced again as soon as there can be transportation furnished for those that are needed in England. Prices are high there and would be higher here

lamps and mutton, and the hard times which affected manufacturers, and even more the poor man who could not get a new coat or a leg of mutton from the lack of money to pay for it.

The sheep gives us quick returns for its feed and many of them; dressing in April, wool in June, lambs in August and mutton in winter. He valued the manure at 30 cents a head, the lamb at \$3 and wool at \$1, for a cost of \$1.50 for feed in the winter months.

They need to be kept clean and dry in the winter months. They need green feed or roots. In summer mix coal ashes with a good supply of coarse salt for them, and occasionally smear their noses with tar to keep them healthy and free from the grub in the head, which destroys more than any other disease in this locality.

In some places the raising of hothouse lambs is successfully carried on. For this the conditions of December and January must be changed to those of April and May. The lamb should be born in November, the sheep should be shorn of their wool that they may endure the warm temperature of the shed, which should be light, warm and well ventilated, and the food rich and nu-

tritious. They should be ready for the market in two or three months. From Christmas to Easter fat lambs weighing 50 pounds or more will bring from 25 to 40 cents a pound. The speaker thought the average farmer could more profitably raise early spring lambs, and feed them from his own products, having them ready for market in August.

There is no farm animal that will improve pastures and orchards like the sheep, feeding on weeds and bushes, grubbing up the grass and sprouts around the stocks of the trees, which are a breeding place for the pests of the orchard, eating the wind-falls and thus destroying wormy and worse than worthless fruit. The advantages of the sheep as a farm animal are that they weaken the soil the least and enrich it the most. They are enemies of weeds. The amount invested is not large. Mutton is the most meat free from disease, and the most nutritious and healthful of food. By comparison the wool costs nothing, while the costs of the ox and horse are wasted, and experiments have proven that a pound of mutton can be produced at less cost than any other kind of flesh.

Mr. Elsie Briggs of Parkman, Me., who is known as one of the most successful sheep raisers in that locality, was called on to relate his experience. He said he put his sheep up the last of October for the winter. They need cleanliness and the water bucket should be kept clean. He kept 25 to 35 sheep in a space 10 by 40, divided in three pens, and they do not go outside from October until they have their lambs. From 34 sheep he raised 45 lambs. Thirty sheep sheared 339 pounds of wool. After lambing the ewes often have more milk than the lambs can take care of. His flock are full grade Hampshire Down, and he paid \$25.50 for his ram, and he was worth to him \$100 as soon as purchased.

He does not feed any grain to his sheep excepting those that have young lambs. He has now 22 sheep wintering, and will be disappointed if they do not shear 10 pounds each. They have the best of hay, cut in July, and are fed four times a day, in the early morning, after the morning chores, at noon and at night. He had 15 sheep with 17 lambs already. One lamb seven weeks old weighs 55 pounds and others nearly as heavy. His sheep pens are open to the barn floor, and in pleasant days the doors

are open into the barn for several hours. In the barn floor is a trough in which he puts grain night and morning, putting in shorts at one end, oat meal at the other, and Indian meal in the center for the lambs. Sheep having one lamb are fed corn and oats. Those with twins get corn, shorts and oats. Some old sheep get corn and oats night and morning and roots at noon. Usually gives 14 quarts of grain to six sheep night and morning. K-eps a mixture of about one quart of coarse salt and a pint of sulphur by them all the time summer and winter, and seldom sees a tick and uses no dip. Always keeps clean and fresh water by them all the time. Shears in April. Has had sheep all his life but three months, having been given one when he was named. He gave figures showing that he had been able to make sheep profitable to him.

Mr. L. B. Harris of Lyndonville, Vt., spoke in the afternoon. He thought 100 sheep should shear 600 pounds of wool and raise at least 90 lambs. The wool should sell for 25 cents a pound and the lambs bring not less than \$3 each, and a good feeder might make them bring \$4. He advised them against feeding hardgrass as usually cut, to sheep, as clover is better. Never cut urinals for any but lambs and old sheep that have not a full month. The man in Maine who devotes his farm to sheep should have a good acreage of rape. The ground must be rich and should be frequently harrowed before sowing, which should not be earlier than June 25. Sow it in drills and work the cultivator through it until after it has the fourth leaf. While one pound of seed will give as much crop as 20 pounds to the acre, it will be well for the beginner to use two pounds until he is used to sowing it. The best variety is the Dwarf Essex, and the seed should not cost more than 7 or 8 cents a pound. If sown the last of June it will be ready to be fed upon at last of August or first of September. When first turned in sheep will eat but a pound or two a day, but later an ordinary flock will eat about 16 pounds each per day. An acre will produce 30 tons. Always keeps a box of salt for the sheep near the field of rape. He has not fed under cover or used racks for 10 years. His land is rich and he runs eight sheep to the acre. His ewers that dress from 100 up to 142 pounds. He begins to kill in November and kept the carcasses several weeks before shipping them to market. If kept properly for 12 to 13 weeks after being killed they bring a good price. Slaughter only after 24 hours fasting.

F. J. Gerry of Dexter formerly kept the coarsest woolled sheep, and raised early lambs with considerable success with small flocks, but they would not stand weather conditions as well as the fine woolled sheep. Mr. Marsh of Ripley had 26 lambs then, March 19, from grade Hampshire sheep. Fed no grain but gluten meal and shorts in about equal quantities. Had discarded cottonseed meal after feeding it 12 or 14 weeks as he lost five lambs, and sheep were not as healthy. The highest price he received for lambs last year was \$9.50 and the lowest was \$5.

In the discussion that followed it was brought out that many fed the ors left by the sheep to their horses, and one man thought it better than hay, as many horses if given the ors would eat the coarse hay and leave the fine hay. One man said Mr. Briggs, one of the first speakers, had ors enough from 30 sheep to feed two horses.

In a future paper we intend to take up the report of an institute held at Machias, Me., which was also devoted to the sheep-growing interest, particularly on the islands of the coast.

Small Beginnings in a Dairy.
Most of the large class of successful dairymen in this country today started life in a small way, and did not reap their rewards until after many years of struggle and endeavor. Their success should be a bright example to many a young man who today is facing problems that seem discouraging. With only a few acres and cows to start with it does not look very promising, and the way to final success is a long and winding one. But if we look at the great business world about us we will find that success in many cases does not come any quicker and surer than on the farm. The reasons and secrets of success apply in each case. It is hard, persistent work intelligently applied. There is no other way to succeed either on the farm or in the business world.

Many of the old-time dairymen started not only with a few cows, but with animals that averaged not more than 150 pounds of butter in a year. They had no such record-breaking stock as we of today. Better brought a trifle more in the market then, but the difference in amount produced per cow more than counterbalanced this. In every case of success, however, the dairyman bred his stock up to a higher level until the yield was gradually doubled. I have in mind for instance one friend whose herd averaged 150 pounds of butter per year for each animal. By careful breeding of the best of the herd, he averaged 300 pounds in three years. Several of his animals he disposed of because they showed very little tendency to improve or increase the supply and quality of the milk and cream. Several of the animals under his hand and proper treatment made the astonishing jump from 150 to 250 pounds in one year. Those animals were immediately seized upon as the proper ones to multiply the herd. With a careful selection of a bull to head the herd, the improvement made some marvelous leaps within five years.

This is not an extreme case by any means, for many others could be cited, and every old dairyman who has made a success in his calling will tell similar stories. They look today upon the young man just enter-

ing business with envy. They have a better start in life than they ever did. They have the well-bred animals at hand, and they can often be purchased for less than what the old sibs brought. There is a good chance in dairying for the small farmer, and if he is willing to keep everlastingly at it and improve his methods as he goes along he is bound to succeed.
Ohio.
E. P. SMITH.

Growing Tomatoes by the Acre.

Almost all farmers grow tomatoes for home use. They plant them in gardens from plants grown in hothouses or in a sunny window near the kitchen fire, and they always plant on the richest soil their garden affords. Thus grown the tomato makes a luxuriant growth of leaf, and if the season is long enough it also sets and ripens a correspondingly large amount of fruit. But this transplanting into rich ground and heavy foliage delays blossoming and fruiting. It is the earliest fruit that brings the highest price, and the farmer who grows tomatoes in large quantities tries to have as many for the early market as possible. We lived once near a farm to a neighbor who grew a great many tomatoes each year. He bought his plants, or rather, contracted for them, from a neighbor who owned a large number of greenhouses, and he claimed that this was cheaper than to keep up the fires for a greenhouse and grow what he wanted for his own use. As the market was already made for the tomato plants they were grown much lower than they could be bought when the time came for planting. In this way my neighbor reserved the right to twice transplant his stock while it was growing in the greenhouse, and at the second transplanting several additional beds were needed, as he each year grew four or five acres of tomatoes.

About two weeks after the second transplanting was the time when my neighbor took to set the plants where they were to grow. Rows were made with a corn maker going each way and dividing the land into checks 32 feet each way. The plants were set in the afternoon after 5 P. M. each day, and the top was shortened and the roots dipped in warm water just before being put in the soil so that it would adhere to them. The earth was then carefully drawn around the plant and a piece of wet paper put over it to shield it from evaporating moisture too rapidly. So soon as the sun was down these pieces of paper were removed and laid over the roots to keep as much moisture as possible in the soil. Sometimes a very little hen manure was spread in the surface soil above the roots, but this in later years was superseded by nitrate of soda, which was applied in the same way at the rate of one tablespoonful to each plant. As the soil was not very rich, this was done to give the roots a good start. So soon as they came to the poor soil outside, the plant began to blossom and produce fruit, which was always much earlier, though less in amount than from the same kind of tomatoes planted in rich ground and making luxuriant growth. The tomato vines were clipped so as to direct the growth altogether to branches that were likely to have blossoms. This made the fruit earlier, though it necessarily limited its amount, as many of the branches clipped early would have blossomed and set fruit if left longer.

Cared for thus tomatoes can be grown as cheaply as potatoes, as they will yield more on the same kind of soil. The ground was cultivated until the growth of the vine made it impossible to go between them with a horse and cultivator. As most of the crop was earlier than that grown in gardens on richer soil it netted the owner more money than he could make from tomatoes grown in any other way.

This experience satisfies us that the tomato is often made late in ripening its crop by too great luxuriance of vine, though success in growing this fruit is at least partly dependent on having some quick-acting manure to give the plants a vigorous start when they are transplanted into very poor soil. It is the sudden change from bonny to scant supplies of plant food that turns the tomato vine from growing stems and leaves to setting and growing fruit.

Government Crop Report.

The April report of the statistician of the Department of Agriculture will show the average condition of winter wheat on April 1 to have been 82.1, against 77.9 on April 1, 1899, 86.7 on April 1, 1898, and a 10-year average of 82.8. While the ravages of the Hessian fly in Ohio, Michigan and Indiana will probably result in not one of these States producing more than half a crop, an exceptionally high condition is reported from the winter wheat States west of the Mississippi river to the Pacific coast. The principal averages are as follows: Pennsylvania, 72; Ohio, 47; Michigan, 57; Indiana, 51; Illinois, 58; Missouri, 91; Kansas, 99; Texas, 101; Oklahoma, 99; Washington, 106; Oregon, 100, and California, 80.

The average condition of winter rye is 84.8, against 84.9 on April 1, 1899, 92.1 on April 1, 1898, and a ten year average of 89.1. Statistician Brown of the New York Produce Exchange figures the condition and acreage as indicating a winter wheat crop of 410,000,000 bushels. This compares with an annual harvest of winter wheat of 296,679,586 bushels, in 1898 of 378,333,291, in 1897 332,701,135 bushels. On Dec. 1, 1899, the estimated yield was 473,353,000 bushels.

Ollie K. (2122), by King Wilkes, has foaled a bay filly at Forbes Farm by Peter the Great (2072) and Similia (2254), by Pawnee, second dam, Janella (2292), by Sultan, third dam, Beniah, dam of Decatur (2062), etc., has a bay filly by Bingen (2062).

AGRICULTURAL.

Live Stock Statistics.

The Department of the Interior sends out the following statements in regard to the live animals on farms and ranches in the United States Jan. 1, 1900: 13,837,534 horses at \$44.61 each, \$125,607,035; 2,086,027 mules at \$33.56 each, \$126,685,030; 16,291,800 milch cows at \$31.60 each, \$79,998,260; 27,610,054 other cattle at \$24.97 each, \$77,189,616; 41,883,068 sheep at \$2.93 each, \$3,944,780. During two years horses decreased in number by 387 and increased in value \$10.35 each. Mules decreased 171,635 in number and increased \$9.65 in value each. Milch cows increased in number 531,474 and in value \$4.15 each. Other cattle, which includes bulls, oxen, steers and heifers, decreased 1,054,143 in number and increased in average value \$4.05 per head, while sheep increased in number 520,105 and in value 47 cents each. This shows a total value of \$321,424,751, but it does not include the cattle, sheep, goats, swine, horses and mules on farms and ranches in transit, the number in stock yards at terminal and initial points, and the number in distillery, brewery and other feeding yards and pens; in livery and boarding stables, private and other barns and enclosures in all villages and cities; in lumber, contractor's and mining camps; in street railway, express, delivery, omnibus, sawmill and factory stables, etc. There were supposed to be several millions of these, and as it is intended that the census of June 1, 1900, shall include them with swine, lambs, goats and other stock, it is expected that they will be able to show an approximate value of three billions of dollars, an amount to astonish the world by its magnitude.

Dairy Notes.

We have said several times that to make a decided increase in the percentage of butter fat in the milk of a cow by improving her feed would take more than a 30 or 40 days trial. We reported last year the trial at the Kansas Experiment Station of a lot of ordinary scrub cows, to see if by feeding liberally of properly balanced rations they could be made to do better than the average cow. The most remarkable feature of that report was that the best cow gave a profit of \$60.37 over cost of feed, and the poorest only \$3.28, and that the 11 poorest cows only showed a profit of \$41.63, or \$1.36 more than that from the one good cow. But there were four cows whose average production was worth \$3.35 less than the cost of their food. These cows have since been sold for beef. O. to take it another way, the best cow produced butter fat at a cost of 8 cents a pound, and the poorest at a cost of 24 cents a pound.

We have given this before, but it will bear repetition as long as we think there are many cows being kept that do not produce enough to pay their feed bill, and we do not think there are many large herds without them, unless they have been tested and such ones thrown out. Where a man keeps but one he usually knows what she is doing, but one among many reduces the average of the herd, and the owner may not know it. It was also a noticeable fact that in nearly every case the cow that consumed the most value in her food produced butter fat at the least cost.

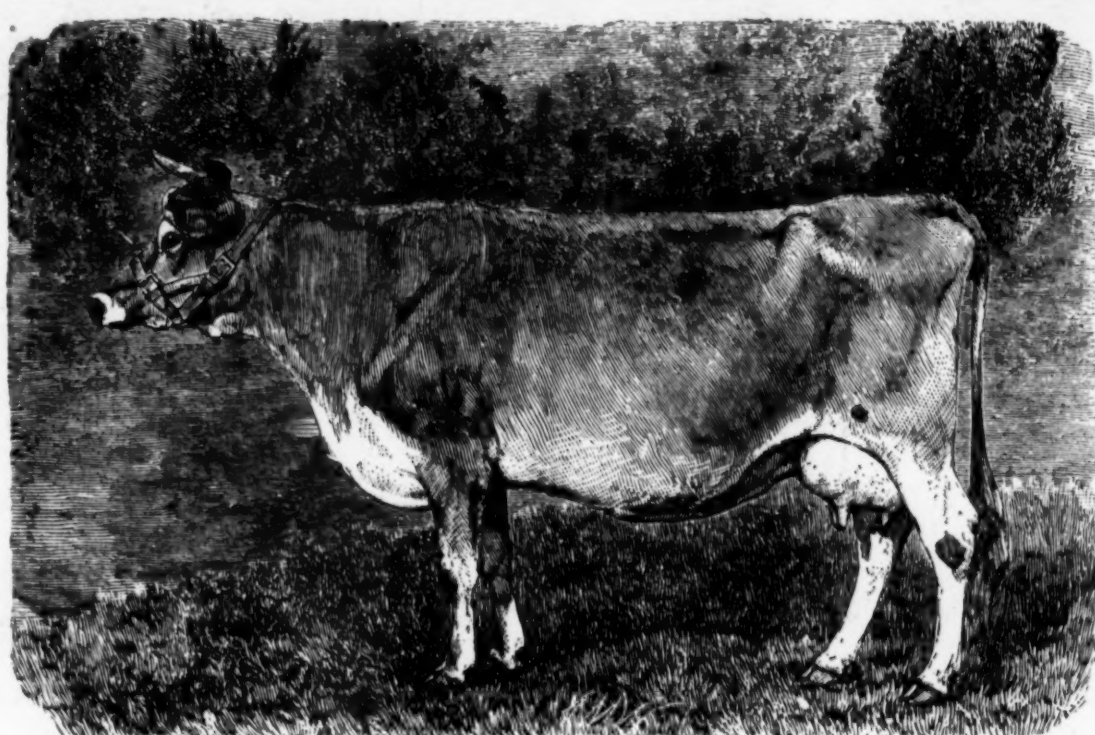
Some of these cows are now well along into the second year of their test, and what we desired to call the attention of our readers to was the change made by some of them in production of butter fat by a second year of good feeding, as detailed by Professor Ols in an essay read before the Missouri State Dairy meeting. Thus cow No. 28, who gave 85 pounds of butter fat in seven months of last year, has given 104 pounds for her first seven months this year, a gain of 19 per cent. No. 5, which gave 85 pounds in six months last year, gave nearly 141 pounds in same time this year, a gain of 65 per cent. Another gained 62 per cent. in seven months, another 39 per cent. in six months, two others 24 per cent. one in two months and the other in four months, while another gained 11 per cent. in seven months. This is taking the period this year as compared with the same period last year.

This is what Professor Ols calls giving a cow a college education, teaching her what to eat, and training her so that she will convert it into butter fat instead of wasting it, or changing it into beef or tallow. We think it proves the point we have contended for, that proper food properly given will increase the production of butter fat in the milk if continued long enough, though it may be necessary in some cases to carry it through and beyond the time while they are not in milk. In our experience we never found a lean cow to give fat milk, or milk that gave a large amount of cream or butter.

They are carrying the experiment still farther. They are raising from these scrub cows calves by a Guernsey bull whose dam gave 60 pounds of butter in a year. They propose to see what can be done with these grade calves when they are cows, by having them fed and handled with the sole purpose of making dairy cows, and they expect that they will produce a herd much superior to that they have now.

Professor Dean of the Ontario Agricultural College says the use of the Babcock test is becoming less common in Ontario than it was a few years ago, because there are so many who have used it that did not know how to make the test properly or would not do so, and so much of the apparatus sent out that was unreliable that people had lost confidence in it. He recommended the Vermont law which requires every one who uses it for others to have a license from the State Agricultural College, to be granted only after examination, and all apparatus used must be examined and branded as good by the State Experiment Station. This insures something like accuracy in the tests, and this is of importance if the test is to be used as a basis for buying and selling milk.

There has long been a suspicion on the



A PRIZE JERSEY COW.

part of some parties that however valuable sterilization may be in destroying bacteria in milk, that it rendered it less easily digestible. Of this there is now little doubt, and it may be even true that in sterilizing milk we have found a remedy that is or may be worse than the disease. In a paper recently read by a scientist from Leipzig before a congress held in Dusseldorf, he said that as the result of an exhaustive examination personally conducted by him, he had come to the conclusion that the continuous use of sterilized milk by infants "leads in a large number of cases to impairment of nutrition, as evidenced by the existence of anemia, rachitis, scurvy, etc."

We believe that all this talk about the bacteria in milk and about tuberculosis has done more injury to the dairy farmer than any other thing, and we might say all other things combined. It has lessened the demand for milk, and that not among the rich, the educated or the fastidious, but among the poor and imperfectly educated, who feared to give their children milk or to use it themselves, although they would, some of them, fearlessly drink the vilest of adulterated liquors without a thought of bacteria, bacilli, or germs of any sort. That this is true almost any milk dealer in any large city will attest. We do not say that there is no danger from impure or unwholesome milk, but we think the danger much less than has been represented, and believe it has been in some cases willfully exaggerated for selfish purposes by those who wanted to displace their science either to gain money or notoriety.

Finding Water.

While I was a member of the board of trustees of the Maine State College, at Orono, the Hon. Lyndon Oak told me the following story: They had long been troubled for water at the college boarding house. When Captain Wingate of Bangor came on to the board, he suggested that they employ a "water witch" as they were called. Mr. Oak laughed at him, thinking it hardly the thing for the trustees of an agricultural college to make themselves party to any such humbug.

However, Mr. Wingate was so earnest that they finally agreed that he might do as he pleased. The next morning, when he returned from Bangor, he brought with him an old fellow, quite poorly dressed, with a huge chew of tobacco in his cheek, and a foreigner at that, and introduced him as the man who could locate and find water at once.

He had no whistle or quicksilver, but simply had two little twigs of some tree, and proceeded to locate a stream of water. He traced the stream quite a distance until it finally passed under the corner of the L part of the boarding house. He told them where to dig, and told them that, as they went down, they must start under the L, in order to be sure to reach the water. They did so, and in going down some 20 feet struck a vein of water on the side next to the house, just where he had indicated that they would find it. The well has been in good service ever since.

That man was no witch or necromancer. He did not pretend to anything of the kind, and only found water by the crooked sticks he held in his hands. I can relate a dozen instances of the kind, but perhaps this one will suffice. I only speak of this because it was engineered by college trustees and professors, not one of whom, save Mr. Wingate, believed any part of it. I will agree to stop here and let the matter rest so far as I am concerned.

D. H. THING.

Mt. Vernon, Kennebec Co., Me.

Practical Sheep Husbandry.

Years of careful culture are needed to get some visible improvement in a flock. But one year's neglect loses it all.

It is the extra feed that does the work of improving an animal. After mere support is insured, the rest is for improvement.

Don't think that a well-bred ram will be kept in high condition on the spare feeding common in the ill-kept flock.

The Argentine treaty is dead and the sheep men did it. President McKinley and the administration have the thanks of a million flock owners in the United States.

It is time to think of the crops to be grown for the next year's feeding. Every kind of food needed may be produced on any farm for the winter's subsistence of a flock, without spending money out of hand for a supply.

The oat crop is one of the most valuable of all grain crops. When fed alone it supplies every necessary for the growth of an animal in precisely the needed proportion

of nutritious elements, and thus there is no waste in it. Instead of a gate should never be permitted where sheep are kept. Many broken legs are caused by bars only let down at one end. A broken leg, it is true, is easily mended, but it is far better to avoid this necessity for it.

For any flock, large or small, the pasture should be divided into plots, each separated by a fence and gate, that a change of feed may be given at short intervals, so that not only feed may be supplied, but also that the feed may be fresh and sweet.

The large red or yellow globe mangel has been found excellent feeding along with rape as a chaff. Sheep love a change of food or pasture, and this natural inclination should be complied with. A satisfied flock is always thrifty and prosperous.

The grass pasture should be an important accessory to the sheep farm. No other feeding is so useful for the little lambs, at first separated from their dams. The grass may be compared to milk, for it has precisely the same elements of nutrition, with about the same proportion of water. A few experiments in preserving rape in silage have shown this method of providing green food for the winter and early spring, lasting until the first spring growth is fit to eat, to be entirely feasible. In fact, rape is as easily and safely preserved in this way as a crop of turnips or other roots.—American Sheep Breeder.

Climatic Misfits.

A physician of Janesville, Wis., Dr. W. P. Roberts, has been making a study of local climatology throughout the United States, and has come to the conclusion that what he calls "local climatic misfits," or places not favorable to health, are responsible for much of our disease, and especially for catarrh and consumption. He points out that while some parts of the country are almost fatal for consumptives, others are practically immune, and he believes that by taking advantage of these facts the present mortality from tuberculosis can be greatly decreased. From a recent lecture by Dr. Roberts, published in the Boston Weekly Transcript (Feb. 9), we quote the following:

"That local climatic misfits exist, and that in many parts of our country the health and lives of the inhabitants are more in jeopardy than in other localities because of such misfits, is a conceded fact.

"So far as I am informed, there has not been any scientific reason made public as to the real cause of these life-destroying climatic misfits, although some physicians and men of science have advanced theories.

"The late and eminent Dr. Henry I. Bowditch of Boston, Mass., many years ago arrived at the conclusion that 'an excess of moisture in the ground' caused the largest number of such misfits along the line of producing consumption in New England.

"After giving the subject my best thought I concluded that the Dr. Bowditch theory had the preponderance of common sense in its favor. In every place throughout New England with which I am familiar there has been a much larger per cent. of mortality from consumption in sections where there is an excess of moisture in the ground than in areas of health resorts in the drier sections of the country.

"My investigations led me to study the scientific weather reports, as gathered and published by our signal service bureau.

"By comparing those reports with personal observations, I learned that in small areas, for example in a town, a circumference locally in a town, a circumference may include several towns or counties in a given State, or wherever consumption is causing a large per cent. of the deaths, we also find an excess of moisture in the ground; which proves the theory of Dr. Bowditch. I have little doubt in my mind that could he have had the aid of the very efficient weather bureau we now have, he would have been able to arrive at the cause, which, in my judgment, is that in all such localities, whether found in New England, Wisconsin, or any other commonwealth, those excessively moist places have perceptibly higher and lower temperature in times of extreme changes of weather than do adjacent localities where the ground is drier.

"It seems to me that as soon as the people become conversant with these facts, it ought not to be very long until the public servants—State officials—will realize that instead of recommending large outlays in money to build and equip State homes for consumptives in close proximity to those excessively moist localities, they will insist on having such institutions located in the most im-

mune (dry) sections to be found within the bounds of the commonwealth.

"In my judgment it would be far better for any commonwealth having a desire to rid itself of this scourge, at the least cost of life and finances, to send a competent commission to locate a State home for consumptives within the bounds of the old American desert, where it has already been proven (through the admirable service of the Invalid Aid Society) that climate together with other environments cures more than ninety per cent. of such cases.

"There are plenty of localities which can easily be secured, and there is no good reason why Congress should not set apart enough of those waste lands to supply every State existing to carry out such a desirable health, life and money-saving scheme."—Literary Digest.

Butter Market.

During the past week the butter market in Boston, as well as other leading points, has been in favor of buyers. In accordance with this view Chicago has declined four cents and New York two cents for the week under review. Boston is off two cents without having effected a clearance of the supplies as they come to land, and further concessions may be necessary before buyers will increase their purchases.

Trade moderate. Prices are now about the same as a year ago, but they dropped to 18 cents the third week in April, to 17 cents the last week, and in the first week in May were quoted at 16 1/2 to 17 cents, the lowest of the year. After that there was a gradual advance to 19 cents which was the ruling price in June.

The make seems gradually increasing in most dairy sections, hence, receivers here are rather inclined to meet the views of buyers to prevent an accumulation of stock. Although the butter now coming in is good for the season, yet it has not the keeping qualities of May and June butter, and dealers are disinclined to hold over stocks of present make.

There seems to be a dearth of small packages, and for the time being large tubs bring as much as small tubs and boxes. Usually butter packed in boxes brings one-half to one cent more than large tubs of 30 to 60 pounds, and some receivers are still asking one-half a cent advance, but most say they will not be able to return more for boxes than for tubs. The small and medium packages have accumulated. Dairy lots are in liberal receipt and take a wide range as to quality. Some run down to 15 and 16 cents, but most of the sales have been at 17 to 19 cents. For the best quality, 18 to 19 cents is a top rate. These figures are all for wholesale lots.

The receipts of butter for the week at Boston were 15,000 tubs and 38,200 small boxes, total weight of 797,054 pounds, against 284,133 pounds the previous week and 779,250 pounds for corresponding week last year. This statement shows an increase as compared with the week previous and last year, and is principally from Northern sources. For Monday and Tuesday of this week receipts continue to show some increase as compared with last week. No exports of butter from Boston last week, against 68,123 pounds for the corresponding week last year. From New York the exports were 35 packages.

The statement of the Quincy Market Cold Storage Company is as follows: Put in, 47 tubs; taken out, 421 tubs; stock, 19,000 tubs, against 5883 tubs same time last year. The Eastern Company reports 110 tubs, against 217 tubs same time last year, and with these added the total stock is 2030 tubs against 6110 tubs a year ago.

Boston Provision Market.

Boston packers have killed fewer hogs for the week, under the high cost in the West, but it is likely that they will increase their output now that Lard is over. The total kill for the week was about 76,500; preceding week, 78,800; same week a year ago, 38,100. There has been a lack of steamers sailing the past week, and in consequence, less provision exports. The total value for the week by Boston packers was about \$165,000; preceding week, \$190; same week a year ago, \$135,000.

Pork packing in the West has also fallen off a good deal, under the smaller receipts and higher cost of hogs. The Cincinnati Price Current has a total kill for the week of 370,000, preceding week 410,000, same week a year ago 375,000. Since March 1 the total killing in the West has amounted to 1,845,000 hogs, same time a year ago 1,845,000, increase 105,000.

For the year ending March 1, the winter packing of hogs shows an aggregate of 8,675,000, the summer pack at 13,325,000.

Total for 12 months 22,000,000. As compared with the previous year this shows a winter decrease of 1,044,000 and a summer decrease of 406,000, a total decrease for the 12 months of 1,450,000 hogs.

A better trade has been ruling in beef, with the tone of the market better. It is evident that the provision men expect a better trade, now that Lard is about even. The market is firmer, especially on the low and medium grades of beef, with the upper grades scarce and in few hands. Fancy sides 84 cents, choice 84 cents, good 7 to 7 1/2 cents, light 6 to 6 1/2 cents, cows 7 1/2 to 6 cents, fancy hinds 11 cent, extra 1 1/2 to 10 cent, good 82 cents, 1 1/2 to 9 cents, fancy fore 6 cents to 5 1/2 cents, good 5 1/2 cents, light 4 to 4 1/2 cents, chucks 4 1/2 to 4 cents, short ribs 4 1/2 to 11 cents, rounds 6 to 8 cents, rump 8 1/2 to 12 cents, rumps and loins 9 1/2 to 13 cents, loins 10 1/2 to 15 cents.

The arrivals of beef for the week were not up to very high figures, though greater than for the preceding week so far as Boston is concerned. But very little beef has gone across the water for want of steamers sailing. The total receipts for the week were 140 cars for cars, preceding week 130 cars for Boston and 118 cars for export, a total of 248 cars; same week a year ago 138 cars for Boston and 100 cars for export, a total of 247 cars.

The season for the coming forward of game is almost entirely over, with some at hand not yet disposed of. The market is nominally quoted at: Venison saddle, 15 to 20 cents, gross; 15 to 17 cents per pair; Mallard ducks \$1.50, black ducks \$1.50, red heads \$1.50 to \$1.75, canvas back ducks \$3 to \$3.50, quail \$2.50 per dozen, pigeons \$1.75 per dozen, squabs \$3.50 per dozen, wild turkeys 25 cents per pound.

Fruit and Vegetables.

There were no apple shipments from the port of Boston for the week; same week a year ago, 398 barrels; same time the season ago 60,177,181 barrels; same time a year ago, 231,738 barrels; same time in 1898, 170,546 barrels. Receipts of apples are small, the total for the week having been 1434 barrels; same week a year ago, 3540 barrels.

California oranges continue to arrive freely, with the supply ample. But the quality is good, and hence they have sold more freely than they otherwise would. Apples are also high, and this helps the demand for oranges. Some counts are pretty firm. For 200 count, \$3.25 per box; 288 to 300, \$3; 216, \$3.25; 200, \$3.50; 176 to 200, \$3.50; 180, \$3.25 to \$3.75; 120, \$3.35 to \$3.45; 112 and 60, \$3.30 to \$4. Seedlings are selling fairly well and are quoted at: For 176 count, \$2.75 to \$3; 200 to 216, \$3; 280 to 288, \$2.75 to \$3.

The receipts of California oranges for the week were 21,005 boxes; same week a year ago, 6013 boxes. Of Jamaica oranges 187 packages also came forward for the week; same week a year ago, 171 packages. On these oranges the market is mainly nominal. A few California Tangerines are still on the market, and are quoted at \$2 to \$2.50 for half boxes. California grape fruit is still offering at \$4 to \$4.25 per box for good. Florida brings fancy prices, if good enough. Lemons are firm and selling well. They are quoted at \$2.50 to \$3.50 per box, as to quality.

Oranges are scarce and high, with fancy prices noted for good, in a small way, however. They are quoted at \$10 to \$13 per barrel for good, with crates at \$2.50 to \$3.50.

Figs are getting toward the end of the season, with Smyrna quoted at 12 to 14 cents. Dates are quoted at \$4 to \$4.50. The weather will soon be too warm for them. Bananas are higher, the last sales having been at about 10 cents per bushel advance.

Florida strawberries were a little short for the week, but 216 refrigerators having been received; same week a year ago, 444 refrigerators. They last sold at 25 to 40 cents per box in refrigerator lots. Last Saturday they were retailing at 50 to 60 cents per box as to quality.

Celery is still on the market with good native, quoted at \$6 per dozen, or at 25 to 30 cents per bunch. New Southern is quoted at \$3.50 per dozen. A little new asparagus is on the market and retails at 50 to 60 cents per bunch. Spinach is quoted at \$1.25 to \$1.50 per barrel. Beet greens bring 85 cents per bushel, dandelions 85 cents per bushel.

Potatoes are easy, under a full supply. Arcot's Green Mountains 50 to 60 cents, Hebrons 50 to 58, Rose 60 to 65, Dakota Reds 45 to 50, northern and Vermont Green Mountains 50 to 55 cents, New York 55 to 58 cents, whites 45 cents, Jersey sweets \$2.50 to \$3.

Onions are pretty firm at \$1.50 to \$2 per barrel, with very fancy possibly a little higher. By the bushel box they are quoted at 60 to 70 cents. Cabans and Bermudas are quoted at \$1.50 to \$1.75 per crate. Lettuce continues plenty and easy at 40 to 75 cents per dozen heads. Radishes are higher at \$1.50 per bushel. Cabbages are at wide range and bring \$2 to \$3 per barrel, as to quality. New cabbages are quoted at \$4.50 per crate. Savoy cabbages are still on the market at \$2.50 per barrel.

Cucumbers are at pretty wide range and sell at \$6 to \$8 per 100 for native, hothouse, as to quality. Tomatoes are at pretty wide range and quoted at \$2.50 to \$3.50 for Southern, with native hothouse still on the market at 25 cents per pound.

Squashes are still very firm, and bring \$45 per ton for good. By the 100 pounds they job at \$3.50 to 2.75. Beets are firmer at 75 cents per bushel. Turnips are firm for fallow at \$1.25 per barrel, with white at \$1.25; boxes, 50 to 60 cents; white flat, 35 cents per box; carrots, 65 cents; parsnips firm, \$1.50 per bushel and at \$2.25 to \$2.50 per barrel. Southern string beans are way up, owing to the scarcity, and quoted at \$8 per crate. New bunch beets are sold at \$1.50 to \$2 per dozen. New bunch carrots bring 75 cents per dozen.

Onions are lower at 50 cents per dozen bunches; water cress, 75 cents per dozen. Parsley is lower at \$1 per bushel. Oyster plant is \$1 per dozen. Brussels sprouts sell at 25 cents per quart. Artichokes sell at \$1.50 per bushel. Mushrooms bring 50 cents to \$1 per pound. Leeks sell at 75 cents per dozen bunches. Rhubarb is still firm at about nine cents per pound. New Bermuda potatoes are on the market at \$7 per barrel and \$1.50 per bushel.

GEMS OF THOUGHT.

...Patience is sorrow's ally.—J. Urquhart.
...Truth loves open dealing.—Shakespeare.
...Virtue is the shining horn of justice.—Unknown.
...Time conquers all, and we must Time obey.—Pope.
...What we ardently wish, we soon believe.—Young.
...A verse may find him, who a sermon flies.—Herbert.
...Women and music should never be dated.—Goldsmith.

...Time and wind say no man's pleasure.—Southwell.
...Things ill-got had ever bad success.—Shakespeare.
...They who have much to lose have much to fear.—Burke.
...She's fair, whose beauty only makes her gay.—Cowley.
...Those best can bear reproach who merit praise.—Pope.
...The greater truth, the greater the libel.—Lord Mansfield.
...The words of a whisper are as daily morsels.—Proverbs.
...It is not what man does which exalts him, but what man would do.—Hawthorne.
...When remembrance wreathes the mind, pleasures but unveil despair.—Hume.
...Reading maketh a full man; conference a ready man; and writing an exact man.—Lord Bacon.
...When the people have no other spirit, their own public opinion becomes one.—B. W. Lytton.

HISTORICAL.

—Bromfield street from Washington street between School street and Winter street to Tremont street, Boston, was called Keweenaw's lane in 1708, after Edward Keweenaw, colonial secretary; Bromfield's lane in 1794 after Edward Bromfield, an eminent merchant, who settled in Boston in 1765 and died in 1784; subsequently named Bromfield street Nov. 10, 1828.

—Harvard University was founded in 1636, and is still administered under the charter granted in 1650. For two generations after the settlement of the country, Harvard was the only college in New England. While overshadowed and honored by the State, Harvard University has been from the first a private incorporated institution, supported in the main, first by the fees of students, and secondly by the income from permanent funds. It was founded by the State, and the first private incorporated institution, supported in the main, first by the fees of students, and secondly by the income from permanent funds. It was founded by the State, and the first private incorporated institution, supported in the main, first by the fees of students, and secondly by the income from permanent funds.

—The shape of the fan was originally modeled after the palm leaf, but it now appears under many different forms. The first fan, which is the most primitive type, was first constructed from a leaf on a stick. The Laminar and folding fans were probably introduced in the fifteenth century, the folding fan being the most familiar form of modern times. The "Laminar" fan, which consisted of slips of ivory, or similar material, connected together at one end by a pin, offered numerous opportunities for carved and placed work in ivory, horn, tortoise shell and enamel work. The folding fan, which is the most primitive type, was first constructed from a leaf on a stick. The Laminar and folding fans were probably introduced in the fifteenth century, the folding fan being the most familiar form of modern times. The "Laminar" fan, which consisted of slips of ivory, or similar material, connected together at one end by a pin, offered numerous opportunities for carved and placed work in ivory, horn, tortoise shell and enamel work. The folding fan, which is the most primitive type, was first constructed from a leaf on a stick. The Laminar and folding fans were probably introduced in the fifteenth century, the folding fan being the most familiar form of modern times. The "Laminar" fan, which consisted of slips of ivory, or similar material, connected together at one end by a pin, offered numerous opportunities for carved and placed work in ivory, horn, tortoise shell and enamel work.

—The summit of Beacon Hill, on which stood the ancient Paros of Boston, is interesting by Temple street, named for Sir John Temple, who married a daughter of Governor Bowdoin. The tract owned by the town was only six rods square, with a roadway of thirty feet leading to it. This was sold to John Hancock and Samuel Spear in 1811, when the action of the abolitionists digging down the hill made it untenable. On top of this grassy mound was erected the beacon, used to alarm the country in case of invasion. It was erected about 1634-35, the town having ordered it set on Centenary Hill, as it was then known, with a watch of one person to give the signal on the approach of danger. The beacon was a tall mast, standing on cross timbers placed upon a stone foundation, frame designed and erected by Thomas. Tree stumps were driven through the mast by which it was ascended, and near the top projected a crane of iron, six-to-five feet from the base, upon which was suspended an iron skeleton frame designed to receive a barrel of tar or other combustible matter. This receptacle was more than two hundred feet above the sea level, and it could be seen, when fired, for a great distance inland. In 1768, it having fallen from some unknown cause, it was replaced by a new beacon. In November, 1789, it was blown down.

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Hood's Sarsaparilla
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OUR HOMES.

The Workbox.

LADIES' KNITTED JACKET.

Use about 8 ounces of Fleisher's German-town zephyr, two bone needles No. 7 or No. 8.

1st row—Cast on 101 stitches, knit 1 row plain.

2d row—Knit 50 plain, increase 1, by picking up a stitch at the back of the 50th and 1 more on the 51st stitch, knit plain to end.

3d row—Plain. Continue thus, increasing two in the center of every other row until there are 120 stitches on the needle. Now leave 65 stitches on a third needle, and knit the 64 backwards and forwards, decreasing twice at the beginning of every other row, until there are again 50 stitches.

4th row—Plain. Continue thus, increasing two in the center of every other row until there are 120 stitches on the needle. Now leave 65 stitches on a third needle, and knit the 64 backwards and forwards, decreasing twice at the beginning of every other row, until there are again 50 stitches. It is by leaving them in too long that the harm is done, and when the tool is not locked after.

Put around the neck 60 stitches; knit 18 rows plain. This may be turned over and fastened with buttons. EVA M. NILES

Mutton Tallow.

A great deal of money is spent for lotions and creams to heal the hands at this season of the year. While many of them are very cheap the farmer's wife and daughters have the material at home to prepare remedies which cost nothing, and are more reliable for the reason that the ingredients are known to be harmless.

In the days of our grandmothers mutton tallow was a well known cure for all skin troubles, and was used in the pure state. At this period dainty women would object to it, but it may be softened with a little sweet oil and perfumed with rose or violet without losing any of its virtues.

A healing soap may be made by melting a small cake of pure toilet soap with an equal quantity of mutton tallow and half as much cornmeal. It should be well mixed and left cool. If the hands are washed with it they will never chafe.

Mutton tallow to which a few drops of carbolic acid is added will heal sores or any raw surface on man or beast.

An admirable cold cream, far superior to that sold at high price, is made by taking the tallow from the sheep's kidneys and trying it out slowly on the back of the stove, then adding a little powdered borax and a few drops of spirits of camphor. When cool perfume with rosemary and pour into a jar.

A mixture of glycerine and mutton tallow is excellent for restoring the oil of the skin when it is dry and hard. Baxolin, being a tonic for the skin, may be mixed with the tallow with very beneficial results, as the one heals and smooths the face and hands while the other tones and strengthens the skin.

Mutton tallow melted and softened by adding oil and borax, well rubbed over the face before going out in the cold, will prevent the skin from chapping, and in summer from becoming itchy and burning. When used mutton tallow in various ways will find it the best and safest of remedies.—Farmer's Call.

The Cause and Treatment of Gout.

We have seen in a former article that an attack of gout is caused by the deposit of uric acid in the blood in one or more of the joints, particularly the big toe joint, and that this is referred back to an excess of uric acid formation in the body, that is to say, to the existence of what is known as a uric-acid habit.

Tendency to the formation of uric acid may be inherited, or it may be acquired by luxurious living. It does not always find expression in gout, but may instead cause stones in the bladder, or gravel, or may give occasion to recurrent attacks of more or less violent headache. Why gout should occur in one case, gravel in another and headaches in a third, has never been explained. We know, however, that in one who is predisposed to gout, the eating of meat and the drinking of sweet wines and ale increase the tendency, as does a sedentary life.

During a "fit of the gout" the treatment is directed chiefly to easing the pain. The affected joint should be kept warm by wrapping it in cotton, a laxative should be given, and perhaps opiates may be required. Cold applications to the joint, such as are often of great service in ordinary inflammation, should never be made, as it is believed that the gout may thus be sent to the stomach or some vital organ.

The diet must be regulated by cutting off as far as may be the foods, such as meat, fish, eggs, cheese, peas and beans, which experience has shown to be injurious. Rice and meat and are especially bad, while cheese and beans, together with a little fish, may be allowed. Many physicians forbid the use of salt, on the theory that the sodium unites with the uric acid in the blood to form the gouty deposit.

The patient should drink abundantly, but only of water or milk, alcoholic beverages, especially malt liquors and heavy wines, being strictly avoided. Water should be taken freely, except with the meals, at least two quarts being taken each day. Coffee and tea are better avoided, and in any case should be drunk in small quantity and not too strong.

All these dietetic rules should be strictly followed after the acute attack has subsided, in order to prevent a recurrence. A very important matter in the case of one with a gouty tendency is the taking of exercise in the open air.—Youth's Companion.

To Purify a Cistern.

Should the water in your cistern become tainted from some unaccountable cause and have an unpleasant odor, it may be purified either by forcing air into it by stirring it well, or by adding a mixture of equal parts of alum and borax at the rate of about three ounces to the barrel. To make really sure combine these three methods. If the cistern can be emptied without inconvenience, as in the time of drought, give the sides as well as the bottom a thorough scraping, being careful to remove everything collected. Wet the whole place, then lower an old iron pot full of live coals, upon which, when upon the bottom, drop two or three tablespoonfuls of sulphur. (You

must not be in the cistern at the time.) Close the place for a day and air it for a night before going in again. If the walls can be made fairly dry before rain comes, whitewash them using quick lime fresh from the kiln, and applying while it is still hot. The sulphur fumes and the whitewash so made and applied will act as germicides and fungicides and will make the place pure and sweet. Always keep the cistern clean.

Another correspondent suggests that a simple way is to lower a barrel of charcoal into the cistern and let it remain permanently.—What to Eat.

Chemicals in Laundries.

"The cause of the destruction of linen in the laundry," says Thomas J. Keenan, associate editor of the American Druggist, a student of chemistry, "is the improper use of acids. Chemicals, I believe, are used in all laundries, some more than others. Some use them with discretion, but where they have the clothes to turn out in a short time the washing and bleaching is done in a hurry. In the cheaper laundries they are more reckless. The fibre of the clothes is not injured to any extent by a careful use of bath. It is by leaving them in too long that the harm is done, and when the tool is not locked after.

The chemicals will alter a time, of course, have an injurious effect. The only satisfactory method of bleaching clothes is with sunlight and fresh air, but in a city like New York, where the work must be done hurriedly and the drying done indoors, I don't see what other method can be employed if we want good-looking linen. I don't think any step against the use of chemicals would be feasible; it would react against the poor people. They must have their laundry work finished in a hurry and while at any cost. They can't take their clothes to a large laundry and get them back in a day or two looking white and clean, and at a small cost. As a matter of fact, I don't think there is as much damage done to clothes as people think. A man forgets he has had a shirt for a year, and doesn't like it when he finds that it is wearing out.

It is a practice in some laundries to soak the clothes over night in a solution of chlorine of lime, and in the morning wash them out in washing soda and they come out as white as snow. But this is what the clothes are injured.

There are several methods of using chemicals which are common. One of these is to put the clothes first into a bath of muriatic acid, followed by the alkaline bath of washing soda in the proportion of one pound of washing soda to four gallons of water. The soda counteracts the effect of the acid. Another method is to soak the clothes in a bath of chloride of lime, and follow as in the other instance with the washing soda bath. These chemicals have the effect of Javelle water upon the clothes. The methods are similar to those which are used in bleaching linen in the first place. The natural methods of bleaching in manufacture would be too slow. If the acid bath is just strong enough, it merely dilutes the clothes just wet by it and then dipped quickly into the soda bath, which neutralizes the effect, but little harm is done.

A third process is the use of muriatic acid followed by Javelle water, the same process which is used in removing ink stains, and the one that is often used in altering the figures on checks.

"In some places oil of vitriol or sulphuric acid is used in the place of muriatic acid. This will burn a hole through a piece of cloth if it is dropped upon it. In some places the prepared Javelle water is used. The Chinese are familiar with the carbolic acid, which is used in bleaching their silks. The larger laundries buy their chemicals and peculiar kinds of soap compounds of the big laundry supply companies which make that a business.

"Of the laundries in this city, and there seems to be one of every street corner, there are steam, hand laundries and so-called hand laundries. In the first the work is all done by machinery; in the second it is all done by hand, and in the third the washing is done by machinery and the ironing by hand. The proprietor of one of the latter says:

"I use chlorine of lime for the very solid clothes, such as coatsmen's or any kind of a laborer's, but for nothing else. That is cleansing and disinfecting as well, and if the linen is properly washed out it will do no harm. It is better for the clothes than rubbing them. There is no need of putting chemicals into clothes which have not been worn long enough to be soiled as the shirts of a man who wears two a day. I think they expect more of the laundries than they do of washerwomen. If a woman sent in clothes a little yellow it would be excused, but the clothes from the laundry must be snow white. If I didn't send my clothes back with a good color I would lose more customers than I would by using chemicals. Chinamen, I understand, use potash, and I don't know much about them, and I would not like to be quoted as saying anything about acids that are used in steam laundries. Oxalic acids they use in certain preparations, and when the clothes come out they are ready to dry."

"Laundrymen laugh at me when I say that we do not use chemicals of any kind," said Miss McDuffee, in charge of the Park Avenue Laundry, under the auspices of the Charity Organization Society, where women are taught to become skilled laundresses, and all the work is done by hand. "They say there is no laundry in town where chemicals are not used. I don't know anything about them myself, for I never do use them. I only know that when things come to us that have been in the laundries they fall to pieces with the first wash. They stand some time with the ordinary laundry work, but when they come to be rubbed as clothes are in an ordinary wash they fall to pieces. A laundryman was telling me the other day that the great trouble with chemicals was that they were not rinsed out thoroughly. To get it done was one of the greatest troubles he had with the women in his employ. I think perhaps a little soda used and then the clothes well rinsed would do the harm of so much rubbing."—N. Y. Tribune.

Domestic Hints.

WHITE CAKE.
One-half cup butter, one cup sugar, one and a half cups flour, one teaspoon baking powder, whites of six eggs beaten until stiff, almond or vanilla flavor. Mix in the order given; bake the white in two layers, the yellow in one; put together with plain boiled icing and have the yellow layer between the whites. Garnish with a candy rabbit in the center, surrounded with tiny candy eggs.

ROSE AT FARMHOUSE.
Beat six eggs in a sashpan, with one rounded tablespoonful of grated Parmesan cheese, a dash of pepper, but no salt; stir them well with an egg whip and make of it small omelets, about four. As soon as they are sufficiently firm, take from the fire and sprinkle with a little Parmesan

cheese, salt and trim neatly. Place in a baking dish, sprinkle the top well with olive oil and place in a hot oven five minutes. Four around it omelets one gill of Madeira sauce and serve.

FRUIT PUDDING.
Cook a cup of pearl tapioca in three cups of boiling water until it transpires. Put in salt to taste and half a cup of sugar. When the mixture is cold add two oranges, one banana and the half of a medium sized pineapple all cut into dice. Serve with sweetened whipped cream.

ROSE AT FARMHOUSE.
Make a cream sauce as for baked eggs, adding the juice of a quarter of an onion. Boil the eggs hard, cut them into quarters, salt the cream sauce over them, season with pepper and salt, and serve. This is a palatable first course for luncheon.

CHICKEN LIVERS.
Clean, remove gall bag and green liver adjoining; cut small slices. Dredge with salt, pepper and flour and saute in butter. Remove, add one tablespoonful butter, one level tablespoonful flour, one-half cup chicken stock, stir till thick, add two tablespoonful mango chutney, and pour over the livers.

CRABBED OYSTERS (CRABPING DIANE).
Clean oyster shells, parboil in lower pan, then in upper pan with a quart of water, add one pan half one rounded tablespoonful butter, stir in one heaping tablespoonful cornstarch, one-fourth teaspoonful salt and a dash of paprika and celery salt, add cream gradually, and when thick add oysters. Serve on shortcake or fancy puff past.

Hints to Housekeepers.

A correspondent is puzzled over what she calls the national spirit of the laundress. She asks to be enlightened in the points of difference between German, English and French shops. In Germany a rolled rib is served; in England a rolled iron chop cut fully three inches long, and in France a rolled iron chop, the bone scraped, makes a French chop.

Nothing is so necessary to a well-groomed appearance as a pretty veil, and nothing so ruinous as a crumpled one. Crisp freshness is essential. In the choice of these dainty accessories, the economical woman becomes extravagant. It seems to be a theory that every woman insist upon wearing veils that too completely cover their faces, while those who would look the better for a disguising film favor light meshes.

Remember that a maid cleans everything, injures nothing, saves time, saves labor, saves money, has no equal.

Mats for piano keys are being used in some houses to keep the dust away. They are made of a long strip of white cloth or Roman satin, then cut in washing soda and they come out as white as snow. But this is what the clothes are injured.

For a violet luncheon a quart of home-made strawberry jam, poured into a little vegetable coloring, frozen in a ring mold. When turned out the center filled with candied violets, with natural blossoms arranged around the slab. Another pretty effect is an early spring luncheon secured by filling the mould with white cream, and putting the center with large unopened strawberries, arranging a few on green leaves around the outside of the moulded cream, or a ring of strawberry cream may be filled in the center with white whipped cream, the leaves and fruit serving for an outside garnish. The combination should be continued indefinitely. A ring mould should be the possession of every housekeeper careful of her table effect. It will be found invaluable in preparing attractive company dishes.

When you seal your oysters for some special occasion, if you desire to have them extra tasty and delicious, pour over them just before you put them in the oven half a cup of sherry wine. The allowance is half a cup to three pints of oysters.

The very newest wrinkle in sandwiches is to have one slice of white and one slice of brown bread laid together. They should be cut long and narrow, about an inch and a half wide by four long. If you have these sandwiches made by a caterer or by a hotel, be sure to get a dozen, but they can be easily made at home.

The new French toilet is flat around the neck, the under side being formed merely of net, which on the outside is completely covered with sequins or cascades of lace or chiffon, edged with a tiny frill of Chantilly.

The latest fashion in black and white costumes, are not worn so much as the varied tints of fawn, blue, cream, gray, cream, lilac and a greenish gray.

Handsome pattern gowns are of point d'esprit in silk, with an all over design in silk applied on it. All black is handsome, and black on a steel ground effective. Nothing has been more stylish, however, in applied gowns than the black cloth applied on to black silk.

Some of the new capes for spring wear are so snugly cut, they may be stylish on some people. One is plaited of gray cloth reaching a little below the waist, and having a yoke of white lace with a frill around the lower edge.

The latest fashion in lace and diamonds in dress patterns, Renaissance, Venise, Honiton, or other choice or fancy pattern, are shaped in circular form for both skirt and bodice garment. These fashions are considerably narrower at the top than the old-fashioned ones, and they therefore conform very gracefully to the expanding effects of the gowns, and make charming bertha, sleeve caps and brestlets, needing no garters or plaits to give them necessary fullness, as when straight flounces are used.

Fancy veils, it has been said, is not a virtue and will not be worn, but most of the new veils have a little touch of it, usually in the hair, with more at the neck and finishing the falling out. These falling out are seen on many of the latest veils.

Lace fashions of Renaissance and Venise, as well as other kinds of lace, come all ready shaped in the circular form, fitting the top of the skirt perfectly.

Maple, auburn and yellow oak leaves used on Lehigh have been trimmed with crepe lace and wide velvet ribbon. Not only is the foliage artistically intermingled with the decorative hat, but separate leaves are laid flat upon the outside of the brim around its entire circumference.

The Empire, Gainsborough and Maitland have been appearing among exclusive styles in high-priced French millinery. The shapes are unusually large, and show the eccentricity of crown and brim characteristic of these historical models. Many of the styles are draped over everywhere with tulle, with matching scarf streamers to be tied under the chin, or left to fall from the back of the hat, as preferred. Other models decorated with expensive lace and jeweled buckles and ornaments of the most elaborate and drooping over the brim with all the grace of a Spanish eel.

The addition of one or two large glowing roses under the brim to show just back of the ear.

A novelty in dress trimming is beaded leather of a red-brown tint. It comes in bands and revers-shaped pieces dotted closely all over between the two rows of stitching which form the edge.

French zephyr gingham in new colors and designs is being used for the making of wash silks, have this year in close proximity to each separate pattern lengths of taffeta and satin ribbon, the coloring, stripe, check or dot of which exactly matches the gingham. They are intended for use in making dresses for the simple morning sailor, turban or other hat worn on a suit, and to tie on the top and handle of the plain white parasol.

Embroidered linen which is transplanted from the undergarment which may be second-plaited. Use the plaited batiste for the underbodice with a short bolero of the linen.

Cherish in all the pale pink as well as dark shades of blue and gray is the popular material for tailors' suits.

Tailor-made silk coats, jackets and baggy

The World Beautiful.

BY LILIAN WHITING.

"On one occasion when I was in prayer I had a vision in which I saw how all things are seen in God. I cannot explain what I saw, but I remain deeply impressed by my soul. . . . I saw that the great revelation of Himself earlier in life would have kept me back from much of the value of the life I was to live, so subtle, so spiritual."—Santa Theresa.

In these words from Santa Theresa there is touched a vital truth. If man could see "all things as they are seen in God," the course of his life would be revolutionized. As Santa Theresa says: "I had the Lord been pleased to send me that great revelation of Himself earlier in life would have kept me back from much of the value of the life I was to live, so subtle, so spiritual."—Santa Theresa.

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The figures which Mr. Bok quotes are truly appalling. So far as there is any record, there were, we learn, over ten thousand runaway marriages in America during 1899, and over nine hundred cases of secret marriage, where, sometimes for months, the parents and friends of neither party knew of the nuptial. That such marriages, in the vast majority of cases, bring unhappiness to all concerned, experience has certainly shown. Is it not quite time, therefore, that we should have in this country uniform and more secure marriage laws?

We believe thoroughly, as we said a year ago, in making it less easy for young people to marry. We would have the man able to support a wife and the woman morally and physically fit to be the mother of her children before the church and the state pronounce the two man and wife. We smile over here at the long English prayer-book list in the course of which it is decreed that a man may not marry his grandmother, but he can, it is again decreed, marry his cousin. That the consanguinity marriages tend to weaken and even to destroy our native stock? That unpleasant book, "The Open Question," set many lay folk thinking about such marriages. That the suicide of the wedded couple was wrong almost all readers were convinced, but of these there were few who venture to assert who had the discretion to see that the real evil was in the marriage between the cousins, or rather in the laxity which made this marriage possible.

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THE HORSE.

The Demand for Good Horse Stock.

Advises from various sections of the country show that the market for good horses is in a very healthy condition. The demand for the best grade of animals of all classes is satisfactory to dealers and prices on such are firm. From Kansas City the last report states that good horses of all classes are scarce. Some 400 head of horses for English cavalry service in South Africa were lately shipped from that point.

It has been reported that representatives of the English government have lately tried to negotiate for some 30,000 or 35,000 horses in this country for use for cavalry and artillery service. Some, however, are inclined to ridicule the idea of such a contract as no one can be found who appears to know anything about it. Most men who have sufficient business capacity to become a party to a contract to furnish that number of horses would not be likely to advertise the fact. They would also be very liable to enjoin secrecy upon the parties for whom the animals are to be purchased.

It would be for the interest of the contractors to adopt such a course. A bona fide order for 30,000 horses, well advertised through all the turf and agricultural papers, would send prices up on the grade of horses wanted from \$5 to \$25 per head, and even \$5 per head on 30,000 animals would make quite a difference in the profits. Horses are needed badly by the English army, and many that are now changing hands in this country will, undoubtedly, be sent to South Africa.

The size of animals needed for the army there ranges from 14.2 upwards. A horse that stands 15.1 and weighs in fair condition 1025 pounds is pretty near an ideal for cavalry purposes so far as height and weight are concerned. A horse of those proportions will have plenty of substance, not too sharp on the wither, a barrel, deep both in the chest and flanks, strong back, loin and quarters, a good set of limbs that are especially strong in the hocks. Whether there has been a contract made for a large number or not, it is certain that buyers are pretty actively engaged in picking up the kind of animals that will answer for army purposes, and this will help the demand for that class which was formerly used for street cars, also those of a lower grade.

American horses are gaining in popularity in England. It was recently stated in the Farm, Field and Fireside, an English publication, that our trotting-bred horses in that country are considered superior to the English Hackneys for service.

This is attributed, says that journal, to the sturdiness of the American trotting horse, which, it must be borne in mind, is bred very much on thoroughbred lines, and whose stamina is thoroughly tried by racing. The American-bred trotting horse is bred to race, and the horses and mares which are bred from have something more to recommend them than a mere show yard record.

It is generally conceded in England by those most competent to judge of such matters that American trotting-bred horses, as a rule, are considerably superior to English Hackney stock in the quality of stamina or endurance. This is talked right out loud in some of the English papers. Land and Water, published in London, recently contained the following:

"Sir, in reply to your questions respecting the purchase of trotters for the Imperial Yeomans, I have purchased a larger quantity in Yorkshire. The class I was commissioned to buy were as follows: Blood chasers (riding class), from 14.2 to 15.5, from six years of age up to nine, sound legs and feet, good backs. Special instructions to avoid as much as possible the Hackney breed, as being too short of blood and stamina, and altogether not suitable for riding purposes; in fact, in one district where I had a large show of trotters brought together I rejected 40 Hackney-bred ones.

The last riding of Yorkshire is infested with this useless class of animal. Hundreds of this class of horse in Yorkshire could be sold at any price. Underwood, however, has been so far as class of trade about them, in fact, had almost at any price. I purchased nothing but blood chasers, and these were all passed, and many that were purchased by others were rejected and returned as being too much of the Hackney type. The Hackney error has literally split the breed of our old-fashioned Yorkshire horse as hunter and riding and driving horse. The limit of price for trotters is 645.

Mr. Lenz has had considerable experience in buying horses for the English army, and is a widely well qualified to judge of the merits of the different breeds, so far as cavalry and artillery use are concerned. He seems to regard the Hackney as more ornamental than useful, better adapted for the show ring than the battlefield.

Recent advice from the National Stock Yards, Ill., states that "there were buyers on the market from every quarter wanting every class of horses, and orders among the dealers were so numerous that some could not be filled. Prices were the highest that have been realized this year. From the Union Stock Yards, Chicago, Ill., comes the report that the demand from English quarters is becoming more urgent, but owing to lack of transportation facilities, exports are not operating so extensively as they otherwise would. It is stated that the eminent satisfaction which the American horses have given in Europe has created a foreign demand for them that promises to continue all the good surplus horses for an indefinite period, or until domestic prices advance to a point where there is no profit in exporting them.

Dealers in medium grades of horses in this city who get their supply from the

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A SAFE, SPEEDY AND

POSITIVE CURE.

Prepared exclusively by J. J. Gombault, D. V. M., of the French Government.

SUPERSEDES ALL CAUTERY OF FIRING

Impossible to produce any scar or blemish. The

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of all liniments for mild or severe action. Restores

all Bunches or Blunders from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Bone Thrust, etc., it is invaluable.

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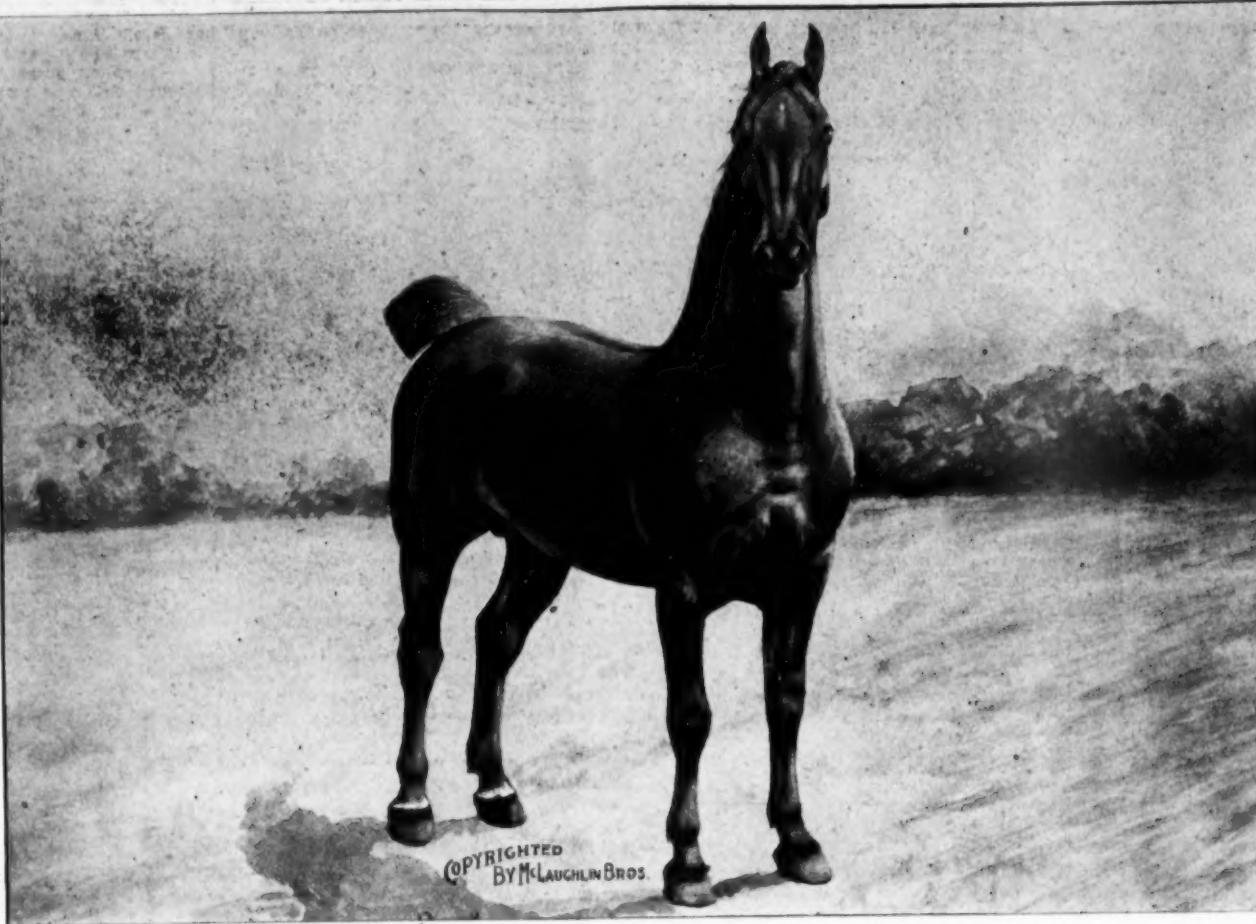
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THE LAWRENCE-WILLIAMS CO., Cleveland, Ohio



THE PRIZE-WINNING IMPORTED FRENCH COACH STALLION QUADRUPLE 2004.
Owned by McLoughlin Bros., Columbus, O.

West have found the demand so good of late that their supplies are usually exhausted before a new lot arrives. Breeders in New England are waking up to the conditions of the horse industry, and are preparing to raise a greater number of foals the coming year than for any season during the past five years. If they use good judgment in their selection of mares and stallions with which to mate them, they will be well repaid. American Horse Breeders.

New Haven (Ct.) Notes.

"I've sold Searchlight," said Mr. J. H. Bronson, when I called at his store on Saturday last week. Continuing he said: "The pacer has been purchased by a party of gentlemen and shipped to Chester Park. Knop McCarthy will drive him. I understand the horse is not to have a stud season, but is to be trained for races. He's a great horse and McCarthy is a great driver."

"How many owners are in the syndicate?" said I.

"Four," said Mr. Bronson.

"What information shall I give the public regarding price?" asked the writer.

"Let them guess," said the gentleman.

"Will you state that you received more than you paid for the stallion?" I asked.

"The price was satisfactory. If it hadn't been I wouldn't have sold him," was the reply.

"I've disposed of him and I'm out of the horse business," said he.

Searchlight (2032, public trial 2020) has been Mr. Bronson's favorite since the purchase last July. He had owned of him since 1858, from six years of age up to nine, sound legs and feet, good backs. Special instructions to avoid as much as possible the Hackney breed, as being too short of blood and stamina, and altogether not suitable for riding purposes; in fact, in one district where I had a large show of trotters brought together I rejected 40 Hackney-bred ones.

The last riding of Yorkshire is infested with this useless class of animal. Hundreds of this class of horse in Yorkshire could be sold at any price. Underwood, however, has been so far as class of trade about them, in fact, had almost at any price. I purchased nothing but blood chasers, and these were all passed, and many that were purchased by others were rejected and returned as being too much of the Hackney type. The Hackney error has literally split the breed of our old-fashioned Yorkshire horse as hunter and riding and driving horse. The limit of price for trotters is 645.

Mr. Lenz has had considerable experience in buying horses for the English army, and is a widely well qualified to judge of the merits of the different breeds, so far as cavalry and artillery use are concerned. He seems to regard the Hackney as more ornamental than useful, better adapted for the show ring than the battlefield.

Recent advice from the National Stock Yards, Ill., states that "there were buyers on the market from every quarter wanting every class of horses, and orders among the dealers were so numerous that some could not be filled. Prices were the highest that have been realized this year. From the Union Stock Yards, Chicago, Ill., comes the report that the demand from English quarters is becoming more urgent, but owing to lack of transportation facilities, exports are not operating so extensively as they otherwise would. It is stated that the eminent satisfaction which the American horses have given in Europe has created a foreign demand for them that promises to continue all the good surplus horses for an indefinite period, or until domestic prices advance to a point where there is no profit in exporting them.

Dealers in medium grades of horses in this city who get their supply from the

Yong by Brigham Young. From F. Andrews of this city has bought the fast pacer Ballou Jib (2164) and is driving him on the road. Mr. Andrews has looked up the gelding's standing in a large number of summaries, and finds he was almost universally a money winner. A trainer who is familiar with the pacer and his speed has expressed a desire to race him this season, as he says: his present record is not as fast as he can go. The "Year Book" refers to Ballou Jib as "dam not traced." My book has his breeding as sired by Noonday (230), a son of Wedgewood (219); dam, Black Swan, by Nephew; granddam, Fanny, by Daro, he by Nephew; third dam, Lucetta, by Morgan Rattler.

Walter A. Clark of New Haven has recently purchased a horse supposed to be fast at the trotting gallop.

Ex-Major C. B. Boardman of Hartford has purchased for his coach a large pair of bright bay geldings, with full manes and long tails. They are roadsters at the trotting gallop and are much admired for style and action. Mr. Boardman has bought a chestnut gelding that can show a 2.40 gallop, which in bygone years was proverbially fast enough to be in the hands of fashion. The gelding was sired by Nouthorne. One of the ex-major's favorites is a very desirable brown horse.

The veterinary surgeon, Dr. T. C. Sirod of Hartford, informed me that he has applied for a patent for a horsehoe. He will announce particulars as soon as his application is granted.

Allen R. K. the trainer and driver, who is now proprietor of the Hartford Hotel, that was formerly called the Brower House, has named the house Hotel Climax. I predict success for Mr. Rink in his new business.

Leroy A. Sewell of Oswego, N. Y., died recently. During 1893 he officiated as starting judge at many races in this State.

Notes from Padelford, N. Y.

I have read all of your most interesting articles, recently printed, in regard to the dam of George Wilkes, and was more than pleased to see that you stand so firmly in your efforts to establish the truth in regard to the sire of Dolly Sparker. I was a little much interested in reading Dr. Day's go-go, sound, honest letter. I agree with the doctor about many of the get of Henry Clay having white hairs in their coat, and I have seen many of this horse's get that had white hairs up at the roots of their tails, some of them being nearly all white for two or three inches in that spot.

In one of the late issues of the BREEDER my friend John P. Ray says it is not too late to get new evidence, as there are old people living in Bristol, where the Phillips Clay mare was bred, who know something about her. Now if Mr. Ray will work half as faithfully in gathering people to say what became of the Phillips Clay mare, as he has done trying to prove that she was not by Henry Clay, all mistakes and disputes can be settled at once. This can be done, and now is the time to do it, before all parties interested are dead. Some one, and perhaps several persons, must know what Joshua Phillips got, and to whom he sold his brown roan, speedy Clay mare.

The mother of Edson Phillips has stated, and it has been published in the BREEDER a number of times, what she knew about the Phillips Clay mare. There may be other mothers or grandmothers in the good old town of Bristol who would know something about this mare and where the money she was sold for went, if the subject were not mentioned to them.

The writer once had 35 horses, mostly of his own breeding. Nearly every one of them had from one to three Clay crosses, and most of them had the stout St. Lawrence and Royal George crosses combined with the Clay. Many of these animals were very fast walkers and they could show natural-born speed at the trot.

To be honest, the writer must say that he has seen very ordinary Hambletonian horses, but when Hambletonian 10 was bred to a six mare, or one with a good thoroughbred cross close up, like the dam of Volante, or a Clay mare, like the brown roan Dolly Sparker, which had a thoroughbred cross through her dam, when Hambletonian was bred to such mares he sired a trotting horse that was nearly perfection, and he was far and away the king of all progenitors of harness speed.

The great Hambletonian-Star cross is just as valuable today as it ever was, and the Nutwoods, Wilkesses, Electioneers, Mambrino Kings and Almonts—each and every family that has merit—should get their share of credit for what they can show when speeded. Breeders should not be prejudiced. Bred to the very best of all our great families, and then in time, just as sure as the sun rises and sets, we shall have very many trotters and pacers that will perform a full mile under the watch in 120 seconds or better.

STEPHEN W. SMITH.

Farmers Breed Horses to Suit the Market.

Mr. President and Gentlemen: Besides the various live stock breeders' associations there is an organization in this State called Farmers' Institutes, "to which is entrusted the development of greater interest in the cultivation of crops, in the breeding and care of domestic animals, in dairy husbandry, in horticulture, in farm drainage, in improved high ways and general farm management, through and by liberal discussions of these and kindred subjects."

It has been my privilege to attend a number of the sessions of these institutes during the past winter in the interest of the horse breeders. I find that the interest taken in the horse-breeding problem is far greater than it has been for some time past. Many a man will take his mare to the stallion this spring that has not done so for years past, and the farmer has awakened to the fact that there is a scarcity of available horses rich where the base of supply should be, on the farms.

During the talks I have attended upon the farm, I have tried to impress upon the minds that we are now using up what may be called the last full crop of foals, that of 1894, and are spending our reserve fund of horses. As the foals from mares this year will take about six years to become marketable horses, they may well look forward to a scarcity before they are ready for it.

I have also tried to sound a note of warning that they must profit by their former mistakes, and not breed in the haphazard manner that they formerly did; that if they breed for their own use or for the market it will repay them amply to breed for a type of horse that will sell well in the city market if they are at any time lucky enough to have a surplus to sell.

Those that are breeding the American trotter breed to the stallion that begins the large and handsome colts, and not for speed alone. To try and get the horses on their farms of one type, so that they will match up into teams more than they have in the past; that the great surety studs that breed for speed are not the ones to copy after, but that the general breeder must breed for size, style and beauty, and they will find ready market for their stock, even if it has not speed enough for the track.

By persistently and consistently following out these lines they will be able to hold the markets of the world that are open open to him. If in the "boom" days we would be in better shape to stand the strain of the shortage of good horses that is now upon us, and if in the past we had made steady, style and beauty an object instead of trying for speed, the breeders could now be getting good prices for their animals fit for coaches or the road.

If they are raising draught horses they should follow a similar plan. Breed their best large mares to the best draught stallion they are able to get. Breed like to like and class to class. Breed them for size and get as large and as high grade drafters as possible, and not to be satisfied until they had a type of animal that buyers would be after them all the time to buy them.

I have also tried to make them understand that they must not neglect the great "oats in cross" while their colts are growing up, and that their horses must have proper education and training; also that it is folly to send a half-bred horse to the city market; as they will, in a town price, all that it costs to bring the horse up to the requirements of city driving and use.

Our organization in its very name, "Horse-Breeders, Dealers and Exhibitors Association," is a combination that should do a great deal of good to the horse industry. It is your duty, dealers and exhibitors, to let the breeder know just what is required; what the markets of the world, as well as of our own country, are demanding. It is the duty of the breeder to put his brains and his blue grass to work (not omitting the oats bin), and produce the type and class of horse that will be for the common good of all.

We must educate the farmer breeder that he must raise only good stock; that he must treat it well, educate it well, and then he will be repaid for his care, skill and kindness. Better two or three good colts than a lot of scrub. Our land is too valuable, our feed too valuable and our time too precious to lose anything but the best horses it is possible for us to handle.

In our association we must all join hands and work for better horses, and that will mean better prices and better times for all of us.

And in this good work I will pledge the heartiest co-operation of the Illinois Horse Breeders' Association.

GEORGE WILLIAMS, Secretary, Illinois Horse Breeders' Association.

BROWMAN'S PILLS—No equal for Constipation.

Don't you believe that German Peat Moss is as economical and healthy horse bedding? Ask C. S. Barrett, 45 North Market Street, to send you testimonials.

"There is no little enemy." Little impurities in the blood are sources of great danger and should be expelled by Hood's Sarsaparilla.

Hood Farm, Lowell, Mass., reports that a Jersey calf recently advertised in this paper was ordered by three different would-be purchasers. This is only another illustration that success depends upon having a first-class article, and then taking the most effective means of letting the people know about it.

We are informed that the managers of the Weymouth Driving Club of Weymouth, Mass., have leased for the season the track of the Weymouth Agricultural and Industrial Society at South Weymouth. They open the season with a matinee Thursday, April 19, and also have a card arranged for Decoration Day, May 30.

F. G. Smith, the well known starting judge of Buffalo, will give the word at most of the meetings in the Lake Erie Circuit this season.



JENNER 1370

...Imported French Coach Stallion

Sire, Dunlop, by Lavater, out of Minette, by the H. (1111); dam, Filice, by Lelher, he by Winger, out of La Deber, by Black Eye.

SERVICE FEE \$25.00.

Blood mares, \$1.00 per week on \$100; \$2.00 on \$150 (grat extra); \$5.00 per year, including grain. Send for estimate.

O. D. KIMBALL and C. E. SHATTUCK, Nashua, N. H.

IMERINO, 2.20

Record (3)

Sire, ALBERTON 2194, record 2:04 1/2 (sire of 66 in the list at 18 years old).

Dam, CYPRUS 2394, by Strathmore (dam of Fala, 2:30; Kafa, 2:37 1/2; Harbor, 2:39 1/2; Imerino, 2:20; Justice, 2:20 1/2; and one producing daughter); second dam, by Belmont (dam of Cyprus 2394, three producing daughters and one sire); third dam, dam of two producing daughters.

Terms 30.00 to insure.

MCMAMARA & WELLS,

Baldwinsville, N. Y.



Chehalis, 2.04 1-4

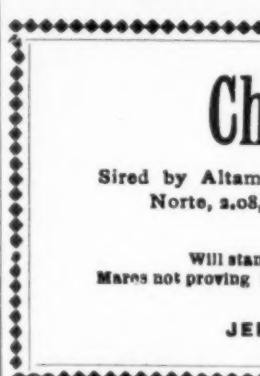
Sired by Altamont; dam, Tecora (dam of Chehalis, 2.04 1-4, Del Norte, 2.08, Touchet, 2.15, etc.), by Cassius M. Clay, Jr.

TERMS \$50, at time of service.

Will stand until May 1st, at my farm in Lexington, Mass.

Mares not proving in foal will have return privilege, or money refunded if horse is sold. Address

JERE O'NEIL, LEXINGTON, MASS.



DIRECTOR W.

No. 32952

Brown colt (3), brother to the noted race mare Evangeline, 2:14 1/2. Sired by Director, 2:17 (sire of Director, 2:08 1/2; dam, Fanny H. (dam of Evangeline, 2:14; Kafa, 2:14 1/2; Mocking Bird, 2:19 1/2; Indiana, 2:19 1/2); by Red Wilkes 1749; granddam, Fortna, by Edwin Forrest 3682. With 60 days work he trotted a mile in a two year old in 2:38.

Terms \$25, with usual return privilege, limited to 10 outside mares. A season early July 15. Address

C. W. Lasell, Whitinsville, Mass.



SOCKS 2.11 1/2

Run of Rockdale, 2:29 1/2, and

Major, by John Willard Jr. (sire of the dam of Hal Billard, 2:04 1/2, etc.). Socks will make the season of 1900 at Washington, N. H., as

FREE OF \$25.

For any particular use

A. W. WHEA, N. H.

51 Main Street, Nashua, N. H.



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Our Clippers clip cleaner, faster and longer than

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horses, better, with less expense, labor and time

than any other—from 20 to 30 horses per hour

perfectly groomed. Our machines are the best

and experience, skilled labor and material, and

make, and the price is the most economical,

quality, service and durability considered. Our

circles tell all about them. Send for one.

AMERICAN SHEARER MFG. CO.

NASHUA, N. H., U. S. A.

BY VIKING, 2:10 1/4. Dam, Maggie Golds-

daughter of Goldsleeper Jr., 2:38, by Goldsleeper 1910; second

dam, Betty Messenger, by Highland Messenger, son of

Culver Jr. Messenger.

Culver is a beautiful, golden chestnut, foaled 1890,

16 hands and weighs 1050 pounds. Has a round

pure, rapid gait and excellent action. Cuts

well, and is a beautiful specimen of the breed.

For 6—Mares kept at low rates.

JAMES H. HUTCHINGS, Philadelphia, Mass.

CULVER

What is now in demand, i. e., fashionable breeding in successful

and health. Terms \$25 with usual return privilege.

Address

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